

**WHAT IS CLAIMED IS:**

1. A rotor for a motor, comprising a body formed by multiple silicon steel sheets securely abutting one another, each silicon steel sheet having a through hole centrally defined therein to define a  
5 passage in the body for receiving a shaft of the motor and multiple aperture defined in an outer periphery thereof at equal intervals to define multiple grooves in an outer periphery of the body, a magnet element longitudinally securely received in a corresponding one of the multiple grooves in the body, each aperture having a bottom and an  
10 opening defined in the outer periphery of each of the silicon steel sheet opposite to the bottom of the aperture, the opening having a width narrower than that of the bottom and centrally corresponding to the bottom, a raised portion extending from the bottom of each of the aperture in each silicon steel sheets toward the opening, the raised  
15 portion abutting a bottom of the magnetic element when the magnetic element is received in the groove in the body for forming a magnetic field with a sine wave due to the rotating rotor.
2. The rotor as claimed in claim 1, wherein the magnetic element is a permanent magnet.
- 20 3. The rotor as claimed in claim 1, wherein two concave portions are respectively defined in two opposite ends of the bottom of each of the aperture and laterally extend relative to each other to centrally the raised portion.

4. The rotor as claimed in claim 2, wherein two concave portions are respectively defined in two opposite ends of the bottom of each of the aperture and laterally extend relative to each other to centrally the raised portion.

5           5. A rotor for a motor, comprising a body formed by multiple silicon steel sheets securely abutting one another, each silicon steel sheet having a through hole centrally defined therein to define a passage in the body for receiving a shaft of the motor and multiple aperture defined in an outer periphery thereof at equal intervals to  
10   define multiple grooves in an outer periphery of the body, a magnet element longitudinally securely received in a corresponding one of the multiple grooves in the body, each aperture having a bottom and an opening defined in the outer periphery of each of the silicon steel sheet opposite to the bottom of the aperture, the opening having a width  
15   narrower than that of the bottom and centrally corresponding to the bottom, two raised portions extending from the bottom of each of the aperture in each silicon steel sheets toward the opening to equally divide the bottom of each of the aperture into three portions, the two raised portions abutting a bottom of the magnetic element when the  
20   magnetic element is received in the groove in the body for forming a magnetic field with a trapezoid wave due to the rotating rotor.

6. The rotor as claimed in claim 5, wherein the magnetic element is a permanent magnet.

7. The rotor as claimed in claim 5, wherein two concave portions are respectively defined in two opposite ends of the bottom of each of the aperture and laterally extend relative to each other to centrally the raised portion.

5        8. The rotor as claimed in claim 6, wherein two concave portions are respectively defined in two opposite ends of the bottom of each of the aperture and laterally extend relative to each other to centrally the raised portion.